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(12) **United States Patent**  
**Ahn**(10) **Patent No.:** **US 6,259,577 B1**  
(45) **Date of Patent:** **Jul. 10, 2001**(54) **METHOD AND APPARATUS FOR  
ORGANIZING SERVO DATA TO EXPAND  
DATA REGION AND COUNTING SECTOR  
NUMBERS FROM HEADERLESS SERVO  
FORMAT IN A DISK DRIVE**(75) **Inventor:** **Young-Shun Ahn, Suwon (KR)**(73) **Assignee:** **SamSung Electronics Co., Ltd.,  
Suwon (KR)**(\*) **Notice:** Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 0 days.(21) **Appl. No.:** **08/879,857**(22) **Filed:** **Jun. 20, 1997**(30) **Foreign Application Priority Data**

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(51) **Int. Cl.<sup>7</sup>** ..... **G11B 5/596**(52) **U.S. Cl.** ..... **360/78.14; 360/77.07**(58) **Field of Search** ..... 360/48, 49, 51,  
360/77.05, 77.08, 78.01, 78.04, 78.14, 77.07(56) **References Cited****U.S. PATENT DOCUMENTS**

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*Primary Examiner*—David L. Ometz(74) *Attorney, Agent, or Firm*—Robert E. Bushnell, Esq.(57) **ABSTRACT**

In the sector number counting method of the HDD using a disk as the recording medium having a plurality of servo sectors which are divided into several servo sectors groups, so that the first sector number information of each of the divided sectors groups is recorded on an index region, the inventive method for counting the sector number according to the present invention comprises the steps of checking whether the index bit recorded on the index region is detected every time when a servo interrupt occurs, and counting and saving the sector number according to a count value of an index timer on the basis of the first sector number of the servo sectors group corresponding to the index bit after the index timer is started when the index bit is detected.

**21 Claims, 4 Drawing Sheets**